NELAC FACT SHEET
FOR
USERS OF ENVIRONMENTAL DATA

Q: What is NELAC?

A: The National Environmental Laboratory Accreditation Conference (NELAC) is a voluntary association of State and Federal Agencies formed to establish and promote mutually acceptable performance standards for the operation of environmental laboratories in support of the National Environmental Laboratory Accreditation Program (NELAP). These standards cover both analytical testing of environmental samples and the laboratory accreditation process. NELAC is a cooperative effort of the USEPA, State and other Federal agencies. Private sector input to the process is obtained through a variety of mechanisms including open semiannual meetings, committee participation and the Environmental Laboratory Advisory Board (ELAB), a federally chartered advisory committee that receives advice from a balanced representation of the private sector.

Q: What is NELAP?

A: The National Environmental Laboratory Accreditation Program(NELAP) is the EPA program that administers and oversees the NELAC process. NELAP received applications from 19 states requesting NELAP recognition as an accrediting authority during 1998. Other states have indicated that they will be applying 1n 1999.

Q: What laws or regulations required the development of NELAC?

A: None! In the late 1980s and early 1990s, regulators and laboratories recognized a need for controlling the quality of environmental data being generated, and also the need to reduce the burden of multiple and sometimes conflicting accreditation requirements imposed by various regulatory bodies that accredit laboratories. A cooperative effort evolved, that resulted in the formation of NELAC and the development of the NELAC standards.

Q: Don't States already accredit environmental laboratories?

A: Yes, but prior to NELAC, the existing State programs varied widely in scope and requirements. Some states had only drinking water laboratory accreditation, while a few accredited laboratories for drinking water, waste water, air, and solid and hazardous waste. Currently, in order to select a laboratory to analyze samples from a given location, it is first necessary to determine whether there is an applicable State accrediting program, obtain a list of accredited laboratories, and contact accredited laboratories to determine if they are able to perform the analysis.

Q: How will laboratory selection under NELAC be different?

A: As each laboratory becomes accredited under a NELAP-recognized accrediting authority, the laboratory and its accredited scope of testing will be entered into a national database. One of the fundamental principles of NELAC is that of reciprocity among NELAP accrediting authorities. Once a laboratory is accredited by one State for testing under a specific EPA program, it can be accredited in another State for that EPA program without having to meet additional accreditation requirements. The national database will simplify the search for a laboratory capable of performing testing under the requirements for a given EPA program and sampling location (or for several locations in different states).

Q: What EPA programs are served by NELAC?

A: NELAC is intended to provide accreditation for laboratories under all EPA programs. The one possible exception is for work done under the EPA Good Laboratory Practices (GLP) requirements in support of TSCA and FIFRA. EPA has yet to determine the practicality of providing accreditation for GLPs, given the need to maintain compatibility between EPA GLP regulations and those of other Federal and international bodies.

Q: Don't approved methods already contain sufficient quality control to assure data quality?

A: Quality control is not the whole answer to assuring acceptable data quality! NELAC specifies a standardized quality system, including requirements for management qualifications; documentation of policies and procedures; calibration and maintenance of equipment; quality control; qualifications and training of personnel; maintaining sample integrity; management of audit findings, corrective actions, customer complaints, records, supplies and subcontracting; and review of the entire system by management to ensure that it is performing as expected. The ability of laboratories to demonstrate their competence will become more important as EPA moves toward a **Performance Based Measurement System**, in which the burden of proof of the applicability and quality of testing lies primarily with the laboratory. By including such quality system requirements, NELAC is building a foundation to assure that future environmental data are traceable, reproducible, and of known quality. This will facilitate interpretation of results, and will minimize the risk of making decisions based on data of doubtful authenticity.

Q: What is the basis of the NELAC quality system?

A: NELAC is designed around two guidance documents that originated with the International Standards Organization (ISO), a body that develops consensus standards in a variety of technical fields. The two documents are **ISO/IEC Guide 25: "General Requirements for the Competence of Calibration and Testing Laboratories",** and **ISO/IEC Guide 58: "Calibration And Testing Laboratory Accreditation Systems-General Requirements For Operation And Recognition".** The NELAC quality system has been enhanced beyond the specifications of ISO/IEC Guide 25 to satisfy environmental program requirements.

Q: With all of these requirements, what will be the impact on cost?

A: Besides the expected savings in accreditation costs, many laboratories find that a well-run quality system lowers the 'cost of quality' by emphasizing activities that assess quality and prevent problems, while reducing costs associated with failure, such as retesting, resampling, downtime, loss of accreditation, and customer dissatisfaction (lost business). As a result, services provided by NELAP-accredited laboratories should provide higher value and improved cost-effectiveness compared to the industry norm prior to NELAC/NELAP.

Q: Where can I learn more about NELAC?

A: Point your Web Browser to **http: //www.epa.gov/ttn/nelac**, where you can find a variety of resources, including copies of the NELAC standards.